

# Patenting research outputs – generating supporting data

Before making the leap into patent law as part of WP Thompson's chemical and life sciences team, Dr Ian Wilson worked and studied in academia for over a decade. In the second part of our series highlighting the key considerations for researchers thinking about patenting an invention, Ian investigates the use of data to support a patent filing.

## Anatomy of a patent

As we all know, scientific journal articles can broadly be broken down into subsections (Introduction, Results, etc.). Patents are no different. Patent specifications are broken down into sections including: a background, which provides context for the invention; a summary of the invention, which details the broad concept of the invention; a specific description, which provides details and includes a discussion of any associated figures, data or examples; and the claims. While the claims define the scope of the invention that is protected by the patent once it has been granted, the rest of the specification supports the claims and should ensure that sufficient detail is provided to allow someone to put the invention into effect.

## The role of data

When presenting scientific conclusions, you need proof in the form of data-led results. You would be unlikely to deliver a presentation saying, "We found X. We have no supporting data, but you can trust me" (although I have seen it happen). In much the same way, unless the effect of the invention is readily apparent from a mere descriptive statement, a patent application should include sufficient rationale and/or evidence that the claims are feasible, i.e., that a claimed product be produced, and that a claimed product or method yields the technical effects set out in the specification. In many fields it may be necessary to provide evidence of at least one way in which an invention may be put into effect, although broader and more robust patent protection may be justifiable from the inclusion of more data.

## Data types

Perhaps unsurprisingly, the type and extent of data and examples required depends largely on the invention. Chemical and life sciences patents often disclose in vitro data although, depending on the field, in vivo data may be required. A healthy way to look at it is through the eyes of a reviewer for a journal. If a patent claim would not be an acceptable statement in a research article without data, what data would make it allowable? Consider carefully what features of your invention you want to claim and plan any experiments accordingly.

## Choosing components

When planning experiments, also think about the components you will use. Scientific methods often describe particular components as essential to their success. However, listing unnecessarily specific components in a patent claim may reduce the scope of protection, and even provide routes for competitors to circumvent the claims of your patent. Of course, finding out later that undisclosed components are actually crucial to your invention could leave a patent in jeopardy if it cannot be put into effect in any other way. It is, therefore, critical to cast a skilled-eye over any experiments to ensure that the specification includes any reagents, solvents and/or conditions that could feasibly be used in those experiments and plausibly still enable the invention to be worked.

## Planning ahead

As you will have noticed, planning is key in the fast-moving world of intellectual property. There is a fine balance between filing a patent application before problematic publications or competing patent applications may be filed, and ensuring you have sufficient data to support the invention set out in the patent application. Working out what data are required and how to generate them is essential to getting this balance right. There are risks inherent in any strategy but planning correctly can lead to a well-protected, rewarding invention for the world to see.

*To find out more, including how IP could benefit your work, please visit <https://www.wpt.co.uk> or contact Stuart Forrest at [sfo@wpt.co.uk](mailto:sfo@wpt.co.uk)*

